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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,558	08/10/2001	David R. Schwartz	049796-5001	4301
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MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			BELL, MELTIN	
			ART UNIT	PAPER NUMBER
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DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,558

Applicant(s)

SCHWARTZ, DAVID R.

Examiner

Meltin Bell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/10/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to application **09/925,558** filed **08/10/2001** as well as the Specification Changes, Drawing Corrections, Information Disclosure Statement (IDS) and Amendment filed 1/10/05. Claims 1-31 filed by the applicant have been entered and examined. An action on the merits of claims 1-31 appears below.

Claim Rejections - 35 USC § 103

Applicant's arguments have been fully considered, but are moot in view of new grounds of rejection. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6, 14-16, 23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* USPN 5,471,382 "Medical network management system and process" (November 28, 1995) in view of *Prezioso* EPN 0 681 249 "Fuzzy logic entity behavior profiler" (November 8, 1995) and in further view of *Weibush et al* "The SDM Model" (July 2001).

Regarding claim 1:

Tallman et al teaches,

- A risk assessment system for evaluating and determining levels of risk (Abstract), the system comprising:
 - a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
 - a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
 - a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") and including data defining profile of a first individual (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
 - an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") that allows the first individual and a set of second individuals associated with the first individual to access the first file (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") and set at least one of the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
 - a risk assessment application being in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer

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memory a risk score in the at least one category (column 59, lines 7-14, "an algorithm asks ... the patient's score") for the first individual using input based on the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

However, *Tallman et al* doesn't explicitly teach weighted profile characteristics, determining levels of risk to a first individual for at least one social risk category, the first individual being a child or the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect while *Prezioso* teaches,

- weighted profile characteristics (Abstract, "The present invention ... external storage device")

Weibush et al teaches,

- weighted (page 7, Family Strengths and Needs Assessments, paragraph 1, "For families receiving ... overwhelming for families") profile (page 7, last paragraph, last bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")

- determining levels of risk to a first individual for at least one social risk category, the first individual being a child (page 6, Prediction versus classification, "The risk level ... an effective manner")

- the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile") and systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso* and *Weibush et al* for the purpose of determining behavior profiles of entities and focusing resources.

Regarding claim 2:

The rejection of claim 2 is the same as that for claim 1 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 6:

The rejection of claim 6 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 6's limitations difference is taught in *Tallman et al*:

- the interface component comprises a telephonic connection between the first individual or the set of second individuals and the system computer (Abstract, "In a medical ... of potential needs")

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Regarding claim 14:

The rejection of claim 14 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 14's limitations difference is taught in *Prezioso*:

- the computer includes software that compares the computed risk score with a predetermined value (page 3, lines 50-54, "behavior characteristics, or ... same peer group") and generates a marker (page 17, lines 23-28, "Step 1150 retrieve from system ... as illustrated in Figure 23") in the first file (page 4, lines 1-11, "The unrestricted expandability ... external storage device") when the composite risk score meets or exceeds the predetermined value (The examiner notes the marker as equivalent to *Prezioso's* fuzzy sets in Figs. 2, 6, 8, 11, 15-22, 24, 26.)

Regarding claim 15:

The rejection of claim 15 is the same as that for claim 14 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 16:

Tallman et al teaches,

- creating and storing in a memory accessible by a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") a first file (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") including data defining profile (column 3, lines 47-54, "The NMS 11 ... software and data 20"; column

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8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37,

"The Patient Chart ... for the patient") of a first individual

- storing in the memory a risk assessment application (column 2, lines 30-35, "A medical network ... and input means") for computing a composite risk score (column 59, lines 7-

14, "an algorithm asks ... the patient's score") indicative of a level of the risk type

(column 4, lines 13-20, "The key piece ... of potential needs")

- computing the composite risk score (column 59, lines 7-14, "an algorithm asks ... the

patient's score") by providing input based on the profile (column 8, lines 25-32, "This

information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for

the patient") of the first file (column 45, lines 56-60, "Type comments in ... to a file";

column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2,

"provide the proper ... store the completed file") to the risk assessment application

(column 2, lines 30-35, "A medical network ... and input means")

- storing (column 73, lines 31-32, "all of its ... is now stored") the composite risk score

(column 59, lines 7-14, "an algorithm asks ... the patient's score") in the computer

memory (Fig. 1; column 2, lines 30-35, "A medical network ... and input means"; column

3, lines 47-54, "The NMS 11 ... software and data 20")

- generating at least one first query set (column 2, lines 35-52, "The patient assessment

... on the display") in the computer memory (column 58, lines 54-60, "The Y/N? Node ...

are as follows"), wherein the query set corresponds to the risk type (column 4, lines 13-

20, "The key piece ... of potential needs")

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- allowing the first individual or a second set of individuals associated with the first individual to access at least one question of the at least one first query set (Figs. 4A-E, 74; column 2, lines 35-52, "The patient assessment ... on the display"; column 58, lines 54-60, "The Y/N? Node ... are as follows") in the computer memory (column 3, lines 47-54, "The NMS 11 ... software and data 20"; column 58, lines 54-60, "The Y/N? Node ... are as follows")

- allowing transmission of information (column 5, lines 23-39, "Provider Information Component 24 ... to a provider"; column 8, lines 45-49, "the health plan ... of care provided") corresponding to the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient"), and based on responses to the at least one question of the at least one first query set from the first individual or second set of individuals associated with the first individual (column 58, lines 54-60, "The Y/N? Node ... are as follows"), to the computer and storing the information in the first file (column 3, lines 47-54, "The NMS 11 ... software and data 20"; column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file")

However, *Tallman et al* doesn't explicitly teach profile characteristics, determining and monitoring a level of risk to a first individual for at least one social risk category, the first individual being a child or defining the at least one social risk category of the first individual to be monitored, the at least one social risk category being child abuse or child neglect while *Prezioso* teaches,

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- profile characteristics (Abstract, "The present invention ... external storage device")

Weibush et al teaches,

- profile (page 7, last paragraph, last bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")

- determining (page 6, Prediction versus classification, "The risk level ... an effective manner") and monitoring (page 8, Risk and Needs Reassessment, "Initial assessments of ... manage their cases") a level of risk to a first individual for at least one social risk category, the first individual being a child

- defining the at least one social risk category of the first individual to be monitored, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Motivation - The portions of the claimed method would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile") and systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso* and *Weibush et al* for the purpose of determining behavior profiles of entities and focusing resources.

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Regarding claim 23:

The rejection of claim 23 is similar to that for claim 16 as recited above since the stated limitations of the claim are set forth in the references. Claim 23's limitations difference is taught in *Tallman et al*:

- the risk assessment application (Abstract, "In a medical ... of potential needs")

Prezioso:

- the application comprises a neural network and the method further comprises training the application (page 3, lines 12-15, "a neural network ... understanding of fraud")

Regarding claim 25:

The rejection of claim 25 is similar to that for claim 16 as recited above since the stated limitations of the claim are set forth in the references. Claim 25's limitations difference is taught in *Tallman et al*:

- the risk assessment application (Abstract, "In a medical ... of potential needs")

Prezioso:

- the application comprises a neural network and the method further comprises training the application (page 3, lines 12-15, "a neural network ... understanding of fraud") using an input set of profile characteristics from a plurality of first individuals (Abstract, "The present invention ... external storage device")

Regarding claim 26:

The rejection of claim 26 is similar to that for claim 16 as recited above since the stated limitations of the claim are set forth in the references. Claim 26's limitations difference is taught in *Tallman et al*:

- the risk assessment application (Abstract, "In a medical ... of potential needs")

Prezioso:

- the application comprises a neural network and the method further comprises training the application using at least one neural network (page 3, lines 12-15, "a neural network ... understanding of fraud") and at least one expert (page 6, lines 53-57, "The first step ... for the profile")

Claims 3, 8, 11-12 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Prezioso* in view of *Weibush et al* and in further view of *Bro* USPN 5,596,994 "Automated and interactive behavioral and medical guidance system" (January 28, 1997).

Regarding claim 3:

Tallman et al teaches,

- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") and including data defining profile of a first individual (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

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- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") that allows the first individual and a set of second individuals associated with the first individual to access the first file (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") and set at least one of the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- a risk assessment application in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score (column 59, lines 7-14, "an algorithm asks ... the patient's score") for the first individual using input based on the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

However, *Tallman et al* doesn't explicitly teach weighted profile characteristics, determining levels of risk to a first individual for at least one social risk category, the first individual being a child, the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect or a network server computer while *Prezioso* teaches,

- weighted profile characteristics (Abstract, "The present invention ... external storage device")

Weibush et al teaches,

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- weighted (page 7, Family Strengths and Needs Assessments, paragraph 1, "For families receiving ... overwhelming for families") profile (page 7, last paragraph, last bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")

- determining levels of risk to a first individual for at least one social risk category, the first individual being a child (page 6, Prediction versus classification, "The risk level ... an effective manner")

- the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Bro teaches,

- the computer is a network server computer (column 20, lines 39-42, "By utilizing the ... for specific purposes")

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile"), systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section"), effecting considerable savings in transmission costs (*Bro*, column 20, lines 42-48, "An advantage of ... in transmission costs"). Therefore, it would have been obvious to one of ordinary

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skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso*, *Weibush et al* and *Bro* for the purpose of determining behavior profiles of entities that have a large number of behavior characteristics as well as focusing resources and effecting considerable savings in transmission costs.

Regarding claim 8:

The rejection of claim 8 is similar to that for claims 6 and 3 as recited above since the stated limitations of the claim are set forth in the references. Claim 8's limitations difference is taught in *Bro*:

- the telephonic connection comprises a second computer and a modem (Fig. 1; column 33, lines 30-61, "by incorporating a ... central mainframe computer")

Regarding claim 11:

The rejection of claim 11 is similar to that for claim 3 as recited above since the stated limitation of the claim are set forth in the references. Claim 11's limitations difference is taught in *Tallman et al*:

- the system memory includes one or more query files (Figs. 4A-E, 70-74; column 21, lines 25-30, "at the heart ... patient's presenting symptoms"; column 62, lines 49-50, "A new file ... now been created"; column 63, lines 1-21, "Enter the Y/N? nodes ... question of the algorithm"), and wherein a software application in the server generates query sets from the one or more query files for at least one of the first individual and the set of second individuals (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care"; column 2, lines 65-67, "a data processing ... algorithms. A stored"; column 3, lines 1-8, "program editor generated ... chain logic algorithms"), and

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responses to the query sets are stored in the computer memory (column 59, lines 7-14; "an algorithm asks ... the patient's score"; column 22, lines 58-64, "The Algorithm Navigation ... Algo-rithm Navigation Window"; The examiner notes *Tallman et al's* "record" as putting data into a storage device, such as computer memory.)

Regarding claim 12:

The rejection of claim 12 is the same as that for claim 11 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 17:

The rejection of claim 17 is similar to that for claims 16 and 3 as recited above since the stated limitations of the claim are set forth in the references. Claim 17's limitations difference is taught in *Bro*:

- generating an alarm signal when the composite risk score exceeds a predetermined value or falls within a predetermined range of values (column 6, lines 14-17, "A processor accesses ... from those sites")

Regarding claim 18:

The rejection of claim 18 is similar to that for claim 17 as recited above since the stated limitations of the claim are set forth in the references. Claim 18's limitations difference is taught in *Bro*:

- storing data corresponding to the alarm signal in the computer memory (column 5, lines 40-52, "The central office ... violation signal alarming"; The examiner notes *Bro's* "recording" as putting data into a storage device, such as computer memory.)

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- allowing at least one individual of the second set of individuals to access data (Figs. 4A-E, 74; column 2, lines 35-52, "The patient assessment ... on the display"; column 3, lines 47-54, "The NMS 11 ... software and data 20"; column 58, lines 54-60, "The Y/N? Node ... are as follows")

Prezioso:

- the data corresponding to the marker (Figs. 2, 6, 8, 11, 15-22, 24, 26)

Regarding claim 19:

The rejection of claim 19 is similar to that for claim 17 as recited above since the stated limitations of the claim are set forth in the references. Claim 19's limitations difference is taught in *Bro*:

- generating and storing in the computer memory (column 35, lines 32-39, "another configuration would ... questions administered daily") at least one second query set, wherein the selection of at least one question for the second query set (column 35, lines 66-67, "The specific content ... upon his education"; column 36, lines 1-19, "gender, age, demographic ... the predetermined model 100") is based on changes (column 11, lines 60-67, "FIG. 3 is a diagram ... stages of change"; column 12, lines 1-32, "FIG. 6 is a graphic ... stages of change") in the first individual's profile characteristics (column 2, lines 11-16, "The need to ... by interactive feedback") causing said alarm signal (column 5, lines 40-52, "The central office ... violation signal alarming")

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Regarding claim 20:

The rejection of claim 20 is similar to that for claims 16 and 3 as recited above since the stated limitations of the claim are set forth in the references. Claim 20's limitations difference is taught in *Bro*:

- the information is transmitted (column 11, lines 17-21, "the present invention ... and public networks") within a computer network (column 13, lines 37-46, "The answers to ... as shown in FIG. 1"), and the computer is a server in the network (column 20, lines 39-42, "By utilizing the ... for specific purposes")

Regarding claim 21:

The rejection of claim 21 is similar to that for claim 19 as recited above since the stated limitations of the claim are set forth in the references. Claim 21's limitations difference is taught in *Bro*:

- storing on the server memory (column 19, lines 5-23, "the computer driven ... in its memory") a software application (column 6, lines 51-57, "The digital network ... of audio information") allowing communication between the first individual and at least one individual of the second set of individuals (column 35, lines 32-42, "another configuration would ... administer prescribed medication"), or between individuals of the second set of individuals

Regarding claim 22:

The rejection of claim 22 is similar to that for claim 19 as recited above since the stated limitations of the claim are set forth in the references. Claim 22's limitations difference is taught in *Bro*:

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- providing the first individual or at least one individual of the second set of individuals with network resources (column 2, lines 19-25, "The active involvement ... and reasoned judgement") based on a response to at least one question of the query set (column 6, lines 12-27, "The Bergeron et al., patent ... before it communicates"; column 14, lines 49-62, "The network 24 relays ... to the questions")

Claims 4-5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Prezioso* in view of *Weibush et al* and in further view of *Graettinger et al* USPN 5,839,438 "Computer-based neural network system and method for medical diagnosis and interpretation" (November 24, 1998).

Regarding claim 4:

Tallman et al teaches,

- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") and including data defining profile of a first individual (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

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- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") that allows the first individual and a set of second individuals associated with the first individual to access the first file (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") and set at least one of the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
- a risk assessment application in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score (column 59, lines 7-14, "an algorithm asks ... the patient's score") for the first individual using input based on the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

However, *Tallman et al* doesn't explicitly teach weighted profile characteristics, determining levels of risk to a first individual for at least one social risk category, the first individual being a child, the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect or the risk assessment application has an ability to learn from patterns within a set of measured input variables and thereby adjust the risk assessment application based on the patterns of the set of measured input variables while *Prezioso* teaches,

- weighted profile characteristics (Abstract, "The present invention ... external storage device")

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Weibush et al teaches,

- weighted (page 7, Family Strengths and Needs Assessments, paragraph 1, "For families receiving ... overwhelming for families") profile (page 7, last paragraph, last bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")
- determining levels of risk to a first individual for at least one social risk category, the first individual being a child (page 6, Prediction versus classification, "The risk level ... an effective manner")
- the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Graettinger et al teaches,

- the application has an ability to learn from patterns (column 2, lines 27-38, "Artificial neural networks ... can impact it") within a set of measured input variables (column 7, lines 41-52, "the neural network ... and diagnostic measurements") and thereby adjust the application (column 8, lines 50-59, "the weight adjustments ... in this application") based on the patterns of the set of measured input variables

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile"), systematically identifying the most problematic cases-and focusing resources

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on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section") and efficiently identifying and interpreting significant medical diagnosis factors (Abstract, "A neural network ... more detailed analysis"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso*, *Weibush et al* and *Graettinger et al* for the purpose of determining behavior profiles of entities that have a large number of behavior characteristics as well as focusing resources and efficiently identifying and interpreting significant medical diagnosis factors.

Regarding claim 5:

The rejection of claim 5 is similar to that for claims 1 and 4 as recited above since the stated limitations of the claim are set forth in the references. Claim 5's limitations difference is taught in *Graettinger et al*:

- the application has an ability to adapt to changes (column 2, lines 27-38, "Artificial neural networks ... can impact it") by training the application with data based on a set of known scores (column 8, lines 50-59, "the weight adjustments ... in this application") and respective sets of known input variables (column 7, lines 41-52, "the neural network ... and diagnostic measurements") corresponding to the known risk scores (Figs. 3, 7-8)

Regarding claim 24:

The rejection of claim 24 is similar to that for claims 23 and 4 as recited above since the stated limitations of the claim are set forth in the references. Claim 24's limitations difference is taught in *Graettinger et al*:

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Graettinger et al teaches,

- the training of the application is performed using a backpropagation technique (column 14, lines 17-22, "Using conventional backpropagation ... for this application")

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Prezioso* in view of *Weibush et al* and in further view of *Hayward et al* USPAN 2003/0023703 "CONTEXT SENSITIVE WEB-BASED USER SUPPORT" (Published January 30, 2003; Filed September 16, 1999).

Regarding claim 7:

Tallman et al teaches,

- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") and including data defining profile of a first individual (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") that allows the first individual and a set of second individuals associated with the first individual to access the first file (column 45, lines 56-60, "Type

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comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") and set at least one of the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- a risk assessment application in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score (column 59, lines 7-14, "an algorithm asks ... the patient's score") for the first individual using input based on the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- the interface component comprises a telephonic connection between the first individual or the set of second individuals and the system computer (Abstract, "In a medical ... of potential needs")

However, *Tallman et al* doesn't explicitly teach weighted profile characteristics, determining levels of risk to a first individual for at least one social risk category, the first individual being a child, the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect or the telephonic connection comprises a hot line operator while *Prezioso* teaches,

- weighted profile characteristics (Abstract, "The present invention ... external storage device")

Weibush et al teaches,

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- weighted (page 7, Family Strengths and Needs Assessments, paragraph 1, "For families receiving ... overwhelming for families") profile (page 7, last paragraph, last bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")
- determining levels of risk to a first individual for at least one social risk category, the first individual being a child (page 6, Prediction versus classification, "The risk level ... an effective manner")
- the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Hayward et al teaches,

- the telephonic connection comprises a hot line operator (Fig. 2; page 1, [0005], "Manufacturers typically maintain ... the requested information")

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile"), systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section") and easing access to the requested information (*Hayward et al*, page 1, [0005], "Manufacturers typically maintain ... the requested information"). Therefore, it would have been obvious

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to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso*, *Weibush et al* and *Hayward et al* for the purpose of determining behavior profiles of entities that have a large number of behavior characteristics as well as focusing resources and easing access to the requested information.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Prezioso* in view of *Weibush et al* in view of *Bro* and in further view of *Hayward et al*.

Regarding claim 9:

Tallman et al teaches,

- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") and including data defining profile of a first individual (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") that allows the first individual and a set of second individuals

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associated with the first individual to access the first file (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") and set at least one of the profile (column 8, lines 25-32, "This information represents do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- a risk assessment application in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score (column 59, lines 7-14, "an algorithm asks ... the patient's score") for the first individual using input based on the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- the interface component comprises a telephonic connection between the first individual or the set of second individuals and the system computer (Abstract, "In a medical ... of potential needs")

However, *Tallman et al* doesn't explicitly teach weighted profile characteristics, determining levels of risk to a first individual for at least one social risk category, the first individual being a child, the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect or the telephonic connection comprises a wireless device for accessing the Internet while *Prezioso* teaches,

- weighted profile characteristics (Abstract, "The present invention ... external storage device")

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Weibush et al teaches,

- weighted (page 7, Family Strengths and Needs Assessments, paragraph 1, "For families receiving ... overwhelming for families") profile (page 7, last paragraph, last bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")
- determining levels of risk to a first individual for at least one social risk category, the first individual being a child (page 6, Prediction versus classification, "The risk level ... an effective manner")
- the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Bro teaches,

- the telephonic connection comprises a wireless device (Fig. 1; column 33, lines 45-61, "a variety of ... central mainframe computer")

Hayward et al teaches,

- a device for accessing the Internet (page 1, [0019], "In FIG. 2, SOHO computer 30 ... to the Internet")

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile"), systematically identifying the most problematic cases-and focusing resources

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on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section"), effecting considerable savings in transmission costs (*Bro*, column 20, lines 42-48, "An advantage of ... in transmission costs") and easing access to the requested information (*Hayward et al*, page 1, [0005], "Manufacturers typically maintain ... the requested information") Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso*, *Bro*, *Weibush et al* and *Hayward et al* for the purpose of determining behavior profiles of entities that have a large number of behavior characteristics as well as focusing resources, effecting considerable savings in transmission costs and easing access to the requested information.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Prezioso* in view of *Weibush et al* in view of *Bro* and in further view of *Moshfeghi et al* USPN 6,076,166 "Personalizing hospital intranet web sites" (June 13, 2000).

Regarding claim 10:

Tallman et al teaches,

- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")

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- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") and including data defining profile of a first individual (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") that allows the first individual and a set of second individuals associated with the first individual to access the first file (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") and set at least one of the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- a risk assessment application in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score (column 59, lines 7-14, "an algorithm asks ... the patient's score") for the first individual using input based on the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

However, *Tallman et al* doesn't explicitly teach weighted profile characteristics, determining levels of risk to a first individual for at least one social risk category, the first individual being a child, the risk assessment application defining the at least one social

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risk category, the at least one social risk category being child abuse or child neglect, a network server computer or the first individual has a first privileged level of server access and the each of the set of second individuals has a respective privileged level of access to the first file, each respective level of access being based on a relationship between respective ones of the second set of individuals and the first individual while *Prezioso* teaches,

- weighted profile characteristics (Abstract, "The present invention ... external storage device")

Weibush et al teaches,

- weighted (page 7, Family Strengths and Needs Assessments, paragraph 1, "For families receiving ... overwhelming for families") profile (page 7, last paragraph, last bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")

- determining levels of risk to a first individual for at least one social risk category, the first individual being a child (page 6, Prediction versus classification, "The risk level ... an effective manner")

- the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Bro teaches,

- the computer is a network server computer (column 20, lines 39-42, "By utilizing the ... for specific purposes")

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Moshfeghi et al teaches,

- the first individual has a first privileged level of server access and the each of the set of second individuals has a respective privileged level of access to the first file, each respective level of access being based on a relationship between respective ones of the second set of individuals and the first individual (Abstract, "The server includes ... the server load")

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile"), systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section"), effecting considerable savings in transmission costs (*Bro*, column 20, lines 42-48, "An advantage of ... in transmission costs") and generating personalized content (*Moshfeghi et al*, column 1, lines 42-58, "These and other ... generate personalized content"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso*, *Weibush et al*, *Bro* and *Moshfeghi et al* for the purpose of determining behavior profiles of entities that have a large number of behavior characteristics as well as focusing resources, effecting considerable savings in transmission costs and generating personalized content.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Prezioso* in view of *Weibush et al* in view of *Bro* in view of *Moshfeghi et al* and in further view of *Kuhn* USPN 6023765 A "Implementation of role-based access control in multi-level secure systems" (February 8, 2000).

Regarding claim 13:

Tallman et al teaches,

- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") and including data defining profile of a first individual (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") that allows the first individual and a set of second individuals associated with the first individual to access the first file (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") and set at least one of the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

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- a risk assessment application in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score (column 59, lines 7-14, "an algorithm asks ... the patient's score") for the first individual using input based on the profile (column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

However, *Tallman et al* doesn't explicitly teach weighted profile characteristics, determining levels of risk to a first individual for at least one social risk category, the first individual being a child, the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect, a network server computer, the first individual has a first privileged level of server access and the each of the set of second individuals has a respective privileged level of access to the first file, each respective level of access being based on a relationship between respective ones of the second set of individuals and the first individual or a subset of the set of second individuals level of access includes access to the composite risk score in the memory while *Prezioso* teaches,

- weighted profile characteristics (Abstract, "The present invention ... external storage device")

Weibush et al teaches,

- weighted (page 7, Family Strengths and Needs Assessments, paragraph 1, "For families receiving ... overwhelming for families") profile (page 7, last paragraph, last

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bullet, "Provide management with ... meet client needs") characteristics (page 4, Risk Assessment, "The heart of ... used in California")

- determining levels of risk to a first individual for at least one social risk category, the first individual being a child (page 6, Prediction versus classification, "The risk level ... an effective manner")

- the risk assessment application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect (page 8, last two paragraphs, "Not all families ... make service decisions")

Bro teaches,

- the computer is a network server computer (column 20, lines 39-42, "By utilizing the ... for specific purposes")

Moshfeghi et al teaches,

- the first individual has a first privileged level of server access and the each of the set of second individuals has a respective privileged level of access to the first file, each respective level of access being based on a relationship between respective ones of the second set of individuals and the first individual (Abstract, "The server includes ... the server load")

Kuhn teaches,

- a subset of the set of second individuals level of access includes access to the memory (Abstract, "Role-based access control ... of the MLS system"; Fig. 3)

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for determining behavior profiles of entities that have a large number

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of behavior characteristics where one or more of the characteristics is weighted to determine the profile (*Prezioso*, page 3, lines 29-31, "Another object of ... determine the profile"), systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section"), effecting considerable savings in transmission costs (*Bro*, column 20, lines 42-48, "An advantage of ... in transmission costs"), generating personalized content (*Moshfeghi et al*, column 1, lines 42-58, "These and other ... generate personalized content") and providing access to protected objects (*Kuhn*, column 3, lines 36-49, "each role within ... security provided by MLS"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Prezioso*, *Weibush et al*, *Bro*, *Moshfeghi et al* and *Kuhn* for the purpose of determining behavior profiles of entities that have a large number of behavior characteristics as well as focusing resources, effecting considerable savings in transmission costs, generating personalized content and providing access to protected objects.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Weibush et al*.

Regarding claim 27:

Tallman et al teaches,

- A risk assessment system for evaluating and determining a level of risk (Abstract), the system comprising:

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- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") including periodic social environmental data defining an input variable set of the child, the social environmental data defining at least one interpersonal relationship of the child (Detailed Description section, paragraphs 145-152, "Relationship--Enter the ... is the patient")
- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") so as to permit access to the first file and the input variable set (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file"; column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
- a risk assessment application being in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score in the at least one category (column 59, lines 7-14, "an algorithm asks ... the patient's score"; column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

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- the application further defining a function operable upon the input variable set so as to generate the risk score indicative of the level of risk for the at least one social risk category (Abstract, "In a medical ... of potential needs"; Detailed Description section, paragraphs 1232-1240, "The Editor Program ... provided in below")

However, *Tallman et al* doesn't explicitly teach a child welfare risk assessment system for a child in at least one social risk category, the risk score is a child welfare risk score for the child or the risk assessment application defining the at least one social risk category as being child abuse or child neglect while *Weibush et al* teaches,

- the risk assessment application defining the at least one social risk category as being child abuse or child neglect, a child welfare risk assessment system for a child in at least one social risk category and the risk score is a child welfare (page 8, last two paragraphs, "Not all families ... make service decisions") risk score for the child (page 10, paragraph 2, "In SDM's foster care ... the previous assessment")

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Weibush et al* for the purpose of focusing resources.

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Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Weibush et al* and in further view of *Amado* USPN 5,701,400 "Method and apparatus for applying if-then-else rules to data sets in a relational data base and generating from the results of application of said rules a database of diagnostics linked to said data sets to aid executive analysis of financial data" (Dec. 23, 1997).

Regarding claim 28:

Tallman et al teaches,

- A risk assessment system for evaluating and determining a level of risk (Abstract), the system comprising:
 - a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
 - a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")
 - a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") including periodic social environmental data defining an input variable set of the child, the social environmental data defining at least one interpersonal relationship of the child (Detailed Description section, paragraphs 145-152, "Relationship--Enter the ... is the patient")
 - an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") so as to permit access to the first file and the input variable set

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(column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file"; column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- a risk assessment application being in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score in the at least one category (column 59, lines 7-14, "an algorithm asks ... the patient's score"; column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")

- the application further defining a function operable upon the input variable set so as to generate the risk score indicative of the level of risk for the at least one social risk category (Abstract, "In a medical ... of potential needs"; Detailed Description section, paragraphs 1232-1240, "The Editor Program ... provided in below")

However, *Tallman et al* doesn't explicitly teach a child welfare risk assessment system for a child in at least one social risk category, the risk score is a child welfare risk score for the child the risk assessment application defining the at least one social risk category as being child abuse or child neglect or the assessment application is a fuzzy logic system while *Weibush et al* teaches,

- the risk assessment application defining the at least one social risk category as being child abuse or child neglect, a child welfare risk assessment system for a child in at least one social risk category and the risk score is a child welfare (page 8, last two

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paragraphs, "Not all families ... make service decisions") risk score for the child (page 10, paragraph 2, "In SDM's foster care ... the previous assessment")

Amado teaches,

-the assessment application (Background of the Invention section, paragraph 137, "The EsteemTM knowledge ... to assist developers") is a fuzzy logic system (Background of the Invention section, paragraph 4, "The invention can ... logic and others") having:

- a rule base (Background of the Invention section, paragraph 3, "More specifically, the ... executive information system") defining the function to relate the input variable set to a set of linguistic variables

- a dynamic working memory (Detailed Description of the Invention section, paragraph 603, "Expert system building ... serves its task") to validate the rule (Background of the Invention section, paragraph 145, "The DataLogic/RTM knowledge extraction ... decisions were made") base

- an inference engine (Background of the Invention section, paragraphs 93-95, "The overall architecture ... which are stored") to combine (Background of the Invention section, paragraph 107, "The XFuzzyTM object-oriented ... simulated problem models ") the set of linguistic variables to generate the child welfare risk score

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following section") and combining the technologies of rule-based expert systems with relational

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database applications (*Amado*, Background of the Invention section, paragraph 156-157, "In Merging expert ... and higher profits"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Weibush et al* and *Amado* for the purpose of focusing resources and combining rule-based expert systems with relational databases.

Regarding claim 29:

The rejection of claim 29 is the same as that for claims 27 and 28 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 30:

The rejection of claim 30 is the same as that for claims 27 and 28 as recited above since the stated limitations of the claim are set forth in the references.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tallman et al* in view of *Weibush et al* and in further view of *Adler* "Kenosha County Department of Human Services Annual Report" (1998).

Regarding claim 31:

Tallman et al teaches,

- A risk assessment system for evaluating and determining a level of risk (Abstract), the system comprising:
- a computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means")
- a memory accessible by the computer (column 3, lines 47-54, "The NMS 11 ... software and data 20")

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- a first file stored (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file") in the memory (column 3, lines 47-54, "The NMS 11 ... software and data 20") including periodic social environmental data defining an input variable set of the child, the social environmental data defining at least one interpersonal relationship of the child (Detailed Description section, paragraphs 145-152, "Relationship--Enter the ... is the patient")
- an interface component (Figs. 1A, 5-24; column 1, lines 10-18, "it relates to ... appropriate care") so as to permit access to the first file and the input variable set (column 45, lines 56-60, "Type comments in ... to a file"; column 71, lines 65-67, "click on the FILE ... which you will"; column 72, lines 1-2, "provide the proper ... store the completed file"; column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
- a risk assessment application being in the computer (Fig. 1; column 2, lines 30-35, "A medical network ... and input means") for computing and storing in the computer memory a risk score in the at least one category (column 59, lines 7-14, "an algorithm asks ... the patient's score"; column 8, lines 25-32, "This information represents ... do not treat"; column 20, lines 36-37, "The Patient Chart ... for the patient")
- the application further defining a function operable upon the input variable set so as to generate the risk score indicative of the level of risk for the at least one social risk category (Abstract, "In a medical ... of potential needs"; Detailed Description section, paragraphs 1232-1240, "The Editor Program ... provided in below")

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However, *Tallman et al* doesn't explicitly teach a child welfare risk assessment system for a child in at least one social risk category, the risk score is a child welfare risk score for the child, the risk assessment application defining the at least one social risk category as being child abuse or child neglect or the input variable set characterizes the economic support, history of abuse and surrounding living conditions of the child while *Weibush et al* teaches,

- the risk assessment application defining the at least one social risk category as being child abuse or child neglect, a child welfare risk assessment system for a child in at least one social risk category and the risk score is a child welfare (page 8, last two paragraphs, "Not all families ... make service decisions") risk score for the child (page 10, paragraph 2, "In SDM's foster care ... the previous assessment")

Adler teaches,

- the input variable set characterizes the economic support (page 23, Division of Workforce Development, Mission Statement, "To create and ... of these services"), history of abuse (page 11, Division of Children and Family Services, Child Protective Services, paragraph 4, "Exhibit 2 on page ... from 1991 through 1998") and surrounding living conditions (page 19, Environmental/Human Health Hazards, "Investigation of human ... other safety hazards") of the child

Motivation - The portions of the claimed system would have been a highly desirable feature in this art for systematically identifying the most problematic cases-and focusing resources on those families-in an effort to reduce the incidence of subsequent maltreatment (*Weibush et al*, page 11, Summary, "The heart of ... the following

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section") and enhancing and maintaining the family unit (*Adler*, page 11, Division of Children and Family Services, Child Protective Services, paragraph 2, "The goal of ... of the family"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Tallman et al* as taught by *Weibush et al* and *Adler* for the purpose of focusing resources and enhancing/maintaining the family unit.

RESPONSE TO APPLICANTS' AMENDMENT REMARKS

Applicant argues that the replacement drawings as well as the amendments to the specification and claims overcome earlier rejections and objections (Amendment REMARKS page 16, paragraph 1).

Information Disclosure Statement (IDS), Drawings, Specification and Claim

Objections

Applicant argues that the *Hudson et al* reference's missing date of publication has been corrected in accordance with 37 C.F.R. 1.97 and MPEP 609 (Amendment REMARKS page 16, paragraph 2), the replacement drawings correct the objections to Figs. 4a-c and 5a-c (Amendment REMARKS page 16, paragraph 3 and page 17, paragraph 1) and that the specification amendments correct the objections to page 12, [0033], page 18, [0054], page 22, [0061], page 25, [0068], page 27, pages 37-38, [0089], the title and the use of trademarks (Amendment REMARKS page 17, paragraphs 2-3).

The correction to the *Hudson et al* reference's date of publication as well as the replacement drawings and specification amendments have been entered and examined. The objections to the specification and IDS are withdrawn. However, it is noted that the item number related to the text ending in 'home?' in Fig. 5a is unclear. Claim 16 on page 11 is also objected to for a minor informality: 'A method' would read well as 'A computer-implemented method'. Appropriate correction is required.

Claim Rejections - 35 USC § 103

Applicant argues that there is no motivation to combine *Tallman et al* USPN 5,471,382 and *Prezioso* EPN 0 681 249 such that they teach, suggest, show or describe the claimed invention as a whole as recited in claims 1 and 16 (Amendment REMARKS page 18, paragraph 2). Specifically, applicant argues that *Tallman et al* and *Prezioso* do not show or describe a system or method defining at least one social risk category, the at least one social risk category being child abuse or child neglect (Amendment REMARKS page 19, paragraph 2), that modifying *Tallman et al* as taught by *Prezioso* would require such a change in *Tallman et al*'s underlying logic that the teachings of the references are not sufficient to render the claims **prima facie** obvious (Amendment REMARKS page 22, paragraph 2) and that *Tallman et al* and *Prezioso* do not show or describe claim 27's child welfare risk assessment system (Amendment REMARKS page 23, paragraph 2). Applicant's arguments have been fully considered, but are moot in view of the above new grounds of rejection.

The examiner agrees that *Tallman et al* and *Prezioso* taken either individually or in combination do not disclose the system or method of the inventions defined in claim 27, a child welfare risk assessment system, as well as claims 1 and 16, defining at least one social risk category, the at least one social risk category being child abuse or child neglect. However, *Weibush et al* "The SDM Model" page 4, Risk Assessment, page 6, Prediction versus classification, page 7, Family Strengths and Needs Assessments, paragraph 1, page 7, last paragraph, last bullet, page 8, Risk and Needs Reassessment, page 8, last two paragraphs, and page 10, paragraph 2 are cited individually and in combination with *Tallman et al* and *Prezioso* for explicitly and inherently disclosing the subject matter set forth in the claims by the applicants. Furthermore, the purpose and motivation for modifying *Tallman et al* as taught by other references include determining behavior profiles of entities that have a large number of behavior characteristics (*Prezioso*, page 3, lines 29-31) and focusing resources (*Weibush et al*, Summary, page 11).

As set forth above with regards to *Tallman et al*, *Prezioso* and *Weibush et al*, the items listed explicitly and inherently teach each element of the applicants' claimed limitations. Applicants have not set forth any distinction or offered any dispute between the claims of the subject application, *Tallman et al*'s Medical network management system and process, *Prezioso*'s Fuzzy logic entity behavior profiler and *Weibush et al*'s The SDM Model.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The following prior art made of record is considered pertinent to applicant's disclosure:

Carroll et al; US 4,952,928 A; Adaptable electronic monitoring and identification system

Aparicio et al; US 5,517,597 A; Convolutional expert neural system (ConExNS)

Brown; US 6,186,145 B1; Method for diagnosis and treatment of psychological and emotional conditions using a microprocessor-based virtual reality simulator

Hunter; US 6,449,603 B1; System and method for combining multiple learning agents to produce a prediction method

Dunham et al; US 2002/0013716 A1; Network based integrated system of care

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- *Zandi*; Use of artificial neural network as a risk assessment tool in preventing child abuse; International Joint Conference on Neural Networks Proceedings; Vol. 2, 15-19 July 2001; pp 1438-1442
- *Adams et al*; How to propose automation for human services; ACM SIGCAS Computers and Society Proceedings of the conference on Computers and the quality of life; Vol. 20, Is. 3; August 1990; pp 8-12
- *Alexander*; Putting the byte on Canadian social welfare agencies; ACM SIGCAS Computers and Society Proceedings of the conference on Computers and the quality of life; Vol. 20, Is. 3; August 1990; pp 13-19
- *Grisedale et al*; Designing a graphical user interface for healthcare workers in rural India; Proceedings of the SIGCHI conference on Human factors in computing systems; March 1997; pp 471-478
- *Brasil et al*; A neuro-fuzzy-GA system architecture for helping the knowledge acquisition process; IEEE International Joint Symposia on Intelligence and Systems Proceedings; 21-23 May 1998; pp 57-64

Any inquiry concerning this communication or earlier communications from the Office should be directed to Melvin Bell whose telephone number is 571-272-3680. This Examiner can normally be reached on Mon - Fri 7:30 am - 4:00 pm.


If attempts to reach this Examiner by telephone are unsuccessful, his supervisor, Anthony Knight, can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MB/M.B.
March 28, 2005


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